

In the claims

1. (currently amended) A method comprising:
detecting a correctable error while processing a transaction within a pipeline;
outputting the transaction from the pipeline into an error queue, such that the transaction is output from the pipeline into the error queue only in response to the correctable error having been detected while processing the transaction within the pipeline, the error queue only storing transactions within which correctable errors have been detected and not transactions within which correctable errors have not been detected;
processing a correction command within the pipeline to correct the correctable error within the transaction; and,
reprocessing the transaction within the pipeline, where the correctable error therewithin has been corrected.
2. (original) The method of claim 1, further comprising, prior to processing the correction command, inputting the correction command into the pipeline.
3. (original) The method of claim 2, further comprising, prior to inputting the correction command into the pipeline, operating the pipeline in a correction mode.
4. (original) The method of claim 1, further comprising, prior to reprocessing the transaction within the pipeline, inputting the transaction from the error queue back into the pipeline.
5. (original) The method of claim 4, further comprising, prior to inputting the transaction from the error queue back into the pipeline, operating the pipeline in a restart mode.

6. (original) The method of claim 1, further comprising, after reprocessing the transaction within the pipeline, operating the pipeline in a normal mode.
7. (currently amended) A system comprising:
a plurality of nodes interconnected to one another, each node comprising:
a plurality of processors;
local random-access memory (RAM) for the plurality of processors; and,
at least one controller to process transactions relating to the local RAM of the node, including correcting correctable errors within the transactions in a non-inline manner in a separate correction mode;
a pipeline within which the correctable errors within the transactions are detected;
an error queue in which transactions having the correctable errors are output,
wherein a transaction is output from the pipeline into the error queue only in response to a correctable error having been detected within the transaction while processing the transaction within the pipeline, the error queue only storing transactions within which correctable errors have been detected and not transactions within which correctable errors have not been detected.
8. (original) The system of claim 7, wherein each controller comprises a pipeline in which the transactions are processed and that includes logic to detect the correctable errors within the transactions.
9. (original) The system of claim 7, wherein each controller comprises a mode controller to control a current mode in which the controller is operating.

10. (original) The system of claim 7, wherein each controller comprises an error queue to which those of the transactions including the correctable errors are routed for correction and reprocessing.
11. (original) The system of claim 7, wherein each controller includes a normal mode in which the transactions are processed and a restart mode in which those of the transaction including the correctable errors are reprocessed after correction of the correctable errors.
12. (original) The system of claim 7, wherein each controller of each node comprises an application-specific integrated circuit (ASIC).
13. (currently amended) A controller for a node of a system comprising:
a pipeline in which transactions are processed;
a mode controller to control a mode in which the pipeline operates; and,
an error queue to which those of the transactions including correctable errors are routed for correction of the correctable errors and reprocessing of the transactions,
wherein a transaction is routed from the pipeline into the error queue only in response to a correctable error having been detected within the transaction while processing the transaction within the pipeline, the error queue only storing transactions within which correctable errors have been detected and not transactions within which correctable errors have not been detected.
14. (currently amended) The controller of claim [[16]] 13, wherein the mode in which the pipeline operates includes one of a normal mode, a correction mode, or a restart mode.

15. (original) The controller of claim 13, wherein the mode controller switches the operation of the pipeline in the normal mode for processing those of the transactions not including the correctable errors.
16. (original) The controller of claim 13, wherein the mode controller switches the operation of the pipeline in the correction mode for correcting the correctable errors within those of the transactions including the correctable errors.
17. (original) The controller of claim 13, wherein the mode controller switches the operation of the pipeline in the restart mode for processing those of the transactions including the correctable errors after the correctable errors have been corrected.
18. (currently amended) A controller for a node of a system comprising:
a pipeline in which transactions are processed;
a mode controller to control a mode in which the pipeline is operable as one of a normal mode, a correction mode, and a restart mode; and,
an error queue to which those of the transactions including correctable errors are routed for correction of the correctable errors and reprocessing of the transactions,
wherein a transaction is routed from the pipeline into the error queue only in response to a correctable error having been detected within the transaction while processing the transaction within the pipeline, the error queue only storing transactions within which correctable errors have been detected and not transactions within which correctable errors have not been detected.
19. (currently amended) A system comprising:
a plurality of nodes interconnected to one another, each node comprising:
a plurality of processors;

local random-access memory (RAM) for the plurality of processors; and,
at least one controller to process transactions relating to the local RAM of the
node, including correcting correctable errors within the transactions in a non-inline manner in a
separate correction mode, each controller having a pipeline in which the transactions are
processed and ~~that includes~~ including logic to detect the correctable errors within the transactions;
_____ a pipeline within which the correctable errors within the transactions are detected;
_____ an error queue in which transactions having the correctable errors are output,
_____ wherein a transaction is output from the pipeline into the error queue only in response to a
correctable error having been detected within the transaction while processing the transaction
within the pipeline, the error queue only storing transactions within which correctable errors have
been detected and not transactions within which correctable errors have not been detected.